DOCUMENT RESUME

ED 414 960 JC 970 528

AUTHOR	McKinney, Kristen
TITLE	The Use of Computer Data Systems in Academic Counseling: Outcomes for Community College Students. ERIC Digest.
INSTITUTION	ERIC Clearinghouse for Community Colleges, Los Angeles, CA.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
REPORT NO	EDO-JC-97-10
PUB DATE	1997-10-00
NOTE	4p.
CONTRACT	RR93002003
PUB TYPE	ERIC Publications (071) -- ERIC Digests in Full Text (073)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Academic Advising; *Academic Records; Community Colleges; Computers; Counseling Techniques; Data Analysis; *Data Collection; Information Systems; Information Utilization; Intervention; Program Effectiveness; School Holding Power; Student Attrition; Two Year Colleges
IDENTIFIERS	ERIC Digests; Miami Dade Community College FL; Midlands Technical College SC; Portland Community College OR

ABSTRACT

This Digest discusses computer assisted advisory practices currently in use in community colleges, outlining the types of data collected and how they are used, including the use of tracking to plan interventions for at-risk students. Enhanced computer technology has improved the effectiveness of academic advising by enabling more thorough and efficient data collection and analysis. Florida Community College has utilized an innovative application of computerized data systems to allow tracking of student progress and improve retention. Entering students must submit an outline of their goals and fields of study, which are periodically scanned for progress. Intervention strategies can then be employed to improve performance and retention. Portland Community College in Oregon utilizes their computerized database to review transcripts and course offerings to help students plan their upcoming schedules. The goal, again, is to increase academic success and retention. Midlands Technical College in South Carolina pairs computerized transcript information with staff training initiatives of developmental academic advising to reduce attrition, increase utilization of services, and involve students in orientation and advising programs. Miami Dade Community College in Florida provides students with mid-semester progress reports so that they can take action to improve if need be. Little consensus has been reached on the overall effectiveness of computer-based academic intervention strategies. They do, however, appear to be most successful when technology is paired with human resources. (YKH)

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ERIC ® Clearinghouse for Community Colleges

University of California at Los Angeles
3051 Moore Hall
Los Angeles, CA 90095-1521
(310) 825-3931

Digest

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The Use of Computer Data Systems in Academic Counseling: Outcomes for Community College Students

by Kristen McKinney

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Enhanced computer technology has made it possible to systematically store and retrieve large amounts of information. This technology has changed the task of academic advising by making transcript and course requirement information readily available to faculty and staff who advise students. Use of the computer eliminates much of the clerical burden once held by advisors who had to transfer information to files by hand (Kramer, Peterson, & Spencer, 1984). Computers also provide the opportunity to perform more complex tracking of student progress and outcomes. This Digest discusses computer assisted advising practices currently in use in community colleges, outlining the types of data collected and how they are used, including the use of tracking to plan interventions for at-risk students. Examples of selected advising programs at community colleges provide information about student outcomes. Finally, the Digest discusses directions for future study.

Data Collection and Use

Data tracking systems at most colleges contain a similar core of information about students, including:

- demographic information,
- placement test scores,
- high school GPA, and
- records of courses taken and grades received at the college.

The student record information can be matched with requirements for a student's degree objective to provide a progress report for use by counselors or the students themselves. Some community colleges collect additional information about educational plans, career goals, and students' perceived needs. Much of this information is assessed at college entry, either through students' application paperwork or an additional questionnaire.

At the most basic level, computerized records help counselors use their time more effectively by making information upkeep and retrieval much less time consuming. However, many colleges have looked beyond applications that simply assist the counselor to more innovative uses of their computer technology. Some colleges have even begun to use their data systems for student advising and retention interventions. Following are four examples of innovative applications of computerized data systems.

Florida Community College, Florida

Before an admissions file is considered complete, students at Florida Community College are required to submit the Advising and Retention Information (ARI) questionnaire that includes questions on the students' goals and field of study (Harr, 1990). This information is entered into the "A Learning Enhancement and Retention Tracking" (ALERT) system and made available to faculty for each enrolled student at the beginning of each semester. In return, instructors complete scanable progress reports for each student midway through the semester from which intervention strategies are recommended. Such programs, often called "intrusive academic advising," are designed to closely track student academic progress and identify where assistance is needed early in the term so as to improve performance and retention (Garing, 1993).

Portland Community College, Oregon

In 1990, Portland Community College conducted a pilot test of their ADVISE program (Bach, 1992). The computerized database allows advisors to utilize transcript information and information about course offerings to help students plan their schedules for the upcoming term. Similar to most other programs of this type, the goal of ADVISE is to increase the academic success and retention of at-risk students. To test its effectiveness prior to use with this specific population, a group of 100 volunteers was solicited from new student orientation sessions and assigned to either a test or control group. The test subjects had a block put on their registration requiring them to obtain the signature of their advisor before they could enroll, thus forcing them to meet and discuss plans with their advisor. Preliminary results after one semester showed no differences between the two groups in terms of GPA, number of credit hours completed, and appropriateness of courses taken based on major and placement test scores. Despite inconclusive results in the pilot study, PCC implemented the registration blocking system for those students who fail to complete 50 percent of their courses each term or whose GPA falls below a 2.0, thus requiring at-risk students to seek guidance from their advisor.

Midlands Technical College, South Carolina

The Comprehensive Student Success Program at Midlands pairs the use of computerized student transcript information with a variety of staff training initiatives that introduce advisors to the concepts of customer service and developmental academic advising (Oliver, 1993). The primary goals of this program are to reduce attrition (especially in at-risk populations such as students with undeclared majors and students of

color), increase the utilization of student support services, and involve all students in orientation and advising programs. Each new student meets with a counselor to develop a student educational plan. The student and counselor discuss the educational plan and use the information to schedule first term courses. After the first meeting, students are not required to see their advisor again unless they fail to maintain satisfactory academic progress. In addition to its use by counselors, the computerized database is used to generate letters referring students to college services that match their academic needs, such as tutoring and workshops.

A comparison of student retention rates after three years with those calculated prior to the implementation of the program revealed that the number of students retained in the college after one year increased by 7.1 percent. The first year retention rates of targeted at-risk populations experienced even greater increases: retention of academically underprepared students rose 15.5 percent, undeclared majors 15.6 percent, and minority students 10.0 percent. Use of student support services by all students increased over the three years by 10%. Increased student enrollment revenues gained from the higher retention rates have helped the college support the costs of running this advising and retention program.

Miami Dade Community College, Florida

Miami Dade was one of the first community colleges to utilize computers Miami Dade was one of the first community colleges to utilize computers to assist in advising functions (Kramer, Peterson, & Spencer, 1984). The Academic Alert (AA) system at Miami Dade was designed to provide students with information about their progress midway through the semester (Belcher, 1991). Reports are gathered from faculty and fed into a computer that prints individualized progress letters to be sent to students. AA letter information is also forwarded to counselors for use in advising.

An evaluation of Academic Alert revealed that while the majority of the faculty (76 percent) thought that students would already know where they stand without AA, only 36 percent of students thought the same. Furthermore, faculty expressed concern that students would not take action to improve even when faced with progress information. However, a study comparing students who did and did not receive letters showed that those who did receive letters had slightly higher term GPAs than those who did not (2.32 and 2.28 respectively). This suggests that students do in fact use the information as an impetus to seek help and improve performance.

Conclusion

It is clear that the use of computer data systems in advising reduces the amount of time spent performing clerical functions. Little consensus, however, has been reached on the overall effectiveness of computer-based academic intervention strategies. They do appear to be most successful when technology is paired with human resources. Faculty who receive training in developmental advising can use the computer-generated information to give students an accurate picture of where they stand. Computer tracking of students and registration blocking can help to ensure that students do in fact meet face to face with a counselor. Perhaps the old adage "the machine is only as good as the person who uses it" applies here. The National Academic Advising Association (NACADA) has identified and addressed the general need across institutional types for guidelines, patterns, and procedures for advisors on how to more effectively utilize technology (Kramer, et. al., 1996). However, a more systematic and widespread study eared to the computer-assisted advising practices at community colleges needs to be conducted to better understand the dynamics of these interventions. Further research into this area should note differences in the student populations, needs, and advisor training at each campus, and how interventions may vary based on these differences.

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